

Discontinuation of provision of WIBID and WIBOR Reference Rates for 1Y Fixing Tenor

Consultation Paper

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1. Introduction

GPW Benchmark (hereinafter: "Administrator") has completed the Cyclical Review of the Method for Determining the WIBID and WIBOR Reference Rates including the Waterfall Method¹ and the mandatory assessment of their ability to measure the relevant market or economic reality (hereinafter: "Review"²). Consistently with the Review, taking into consideration the results of Administrator's assessment and the position of Polish Supervision Financial Authority (hereinafter: "KNF") , due to limited scope of use of the WIBOR for Fixing Tenor 1Y and taking into consideration the lowest Transactionality Level assigned to this Fixing Tenor among all the Fixing Tenors, Administrator starts public consultation and presents this Consultation Paper (hereinafter "Paper") regarding the appropriate date for a secure discontinuation of the provision of the 1Y WIBID and WIBOR Reference Rates.

The Administrator uses Transactionality Level which is a measure of the frequency of usage of Model Quotes in determining the WIBID and WIBOR Reference Rates. More precisely, the Transactionality Level represents a percentage share of Model Quotes contributed by Fixing Participants in the overall number of Quotes in a specified period. The statistic is a stylized measure of how changes in transactionality of the indexes relate to changes the market trends, which is measured using the WIBID and WIBOR reference rate methods.

The history of Transactionality Level³ shows the reaction of the money market, i.e a market measured by the WIBID and WIBOR Reference Rates, to changes in economic and financial market situation. The time series of the statistic confirm as well that the Transaction Level for the WIBID and WIBOR Reference Rates determined for the 1Y Fixing Tenor proved to be historically the lowest and was often equal to zero.

The characteristics of benchmarks with a term structure, which include the elements of market risk, including term premium, financial risk, credit risk, is that the level of the benchmark, and the level of transactions or quotes on the underlying market on a given day or in a given period, stem from the changes of these risk elements among market participants due to the fluctuations in economic parameters and expectations regarding their further development.

The WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor consume changes in these risk elements in the perspective of one year in relation to the moment of submitting the Quotes used for each specific benchmark determination. The history of the Transactionality Level has confirmed also that the differentiation of these factors among Fixing Participants that "incorporate" those risks in input data for WIBID and WIBOR Reference Rates, takes place in connection with the changes in monetary policy factors by the National Bank of Poland.

The Summary of the Cyclical Review of the WIBID and WIBOR Reference Rate Methods (hereinafter "Summary") confirmed at the same time, that the year 2022 brought an increased activity on the unsecured deposit market measured by the Transactionality Level, which was strongly related to the situation on other money market segments and confirmed the ability of the critical benchmark – WIBOR, to successfully reflect the situation on the interbank market of unsecured deposits.

In the light of the arguments regarding the grounds for public consultation regarding a discontinuation of the provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor, the Administrator points out that the fact that Transactionality Levels for this Fixing Tenor is the lowest of all the Fixing

¹ Words and expressions written in capital letters refer to the definitions from Regulations for the WIBID and WIBOR Reference Rates and Regulations for the WIBID and WIBOR Reference Rates

²https://gpwbenchmark.pl/pub/BENCHMARK/files/PDF/materialy/Cyclical_Review_Method_Determining_WIBID_WIBOR_07.2023.pdf

³ https://gpwbenchmark.pl/pub/BENCHMARK/files/WIBID_WIBOR/EN/Transactionality_Level_Tabel_2023.pdf
Administrator presents the Transactionality Level on the website with delay consistently with its policy.

Tenors, does not imply the lack of WIBID and WIBOR ability to measure the underlying market. However, taking under reflection the market features and benchmarks' reaction functions as well as the fact, that in the case of the 1Y Fixing Tenor, periods during which the number of 1Y deposit transactions are limited or such transactions do not take place, compared to other Fixing Tenors are the longest and the most frequent and thus it could be claimed that the ability to evaluate its representativeness for 1Y Fixing Tenor in certain periods could be considered the lowest

As in the case of the 9M Fixing Tenor, the Administrator decided to conduct public consultations regarding issues related to a discontinuation of provision of the 1Y Fixing Tenor for WIBID and WIBOR Reference Rates.

The basic factor behind a discontinuation of the provision of the 9M Fixing Tenor was the limited scope of usage of indices of that Fixing Tenor, what has confirmed through the consultations during the process of adjustment of the WIBID and WIBOR Reference Rates to the requirements of the BMR Regulation⁴.

Publicly available information regarding the usage of the benchmarks for individual Fixing Tenor for 2021⁵ indicate a very low level of usage of benchmarks provided for 1Y Fixing Tenor as in the assets and liabilities of banking sectors (especially if compared to 6M and 3M Fixing Tenors), as in the segment of floating coupon bonds. According to the information contained in the Summary, the decision to conduct these consultations was made based on the recommendation of the KNF indicating the lowest level of usage of the Reference Rates for 1Y Fixing Tenor and the lowest Transactionality Level for this Fixing Term among all the Fixing Tenors being currently provided.

The Transactionality Level is an indirect reflection of the statistics for average volume and number of transactions concluded on the unsecured deposit market over a certain period of time. The conclusions presented in the Review confirm that the transaction pool broken down by money market segments is characterized by a different distribution of volume and number depending on the Fixing Tenor, while in case of transactions of 1Y maturity, the volume and number are among the lowest in total.

What is worth noting, in the case of 3M, 6M and, above all, 1M Fixing Tenor, Related Markets contribute to the overall Transaction Level in the case of the above-mentioned Fixing Tenors in 2017-2022 on average more than in the case of 1Y.

The administrator sees no grounds for expecting any significant deterioration in the transaction pool or a complete cessation of transactions, which, when taken place, most often reflect an actual or expected change in the level of NBP interest rates, an actual or anticipated change in nominal factors, including in particular the inflation rate, or the impact of systemic and structural factors in the economy, which determine operating of the money market in general (e.g. liquidity situation on the PLN market, including the FX swap market).

In order to maintain the transparency of the Administrator's activities, this Paper presents information on the possible impact of the discontinuation of the provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor on some elements of the Method of WIBID and WIBOR Reference Rates. Presentation of the impact is necessary to assess how the discontinuation of the provision of the 1Y Fixing Tenor will affect e.g. Transaction Level or processes for the determination of Reference Rates in connection with the analytical procedures included in the Waterfall Method, implemented in order to incorporate the widest possible use of available information on the money market in the Method of Determining the WIBID and WIBOR Reference Rates.

⁴ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014

⁵ Dane ekonomiczne - Komisja Nadzoru Finansowego (knf.gov.pl) (polish version only)

Table 1 Transactionality Level for WIBID and WIBOR Reference Rates starting from February 2020 it is the date when the new documentation of the WIBID and WIBOR Reference Rates entered into force, after it was adjusted to the requirements of the BMR Regulation.

MONTH	ON(%)	TN(%)	SW(%)	2W(%)	1M(%)	3M(%)	6M(%)	1Y(%)
February 2020	99	25	8	22	30	21	6	0
March 2020	93	28	11	22	36	24	9	0
April 2020	97	24	11	26	36	19	10	0
May 2020	92	15	13	27	35	22	6	0
June 2020	72	7	15	22	26	15	0	0
July 2020	86	10	8	13	21	18	2	0
August 2020	83	11	4	8	17	14	3	0
September 2020	81	9	6	10	15	10	1	0
October 2020	87	8	4	9	17	12	3	0
November 2020	84	3	7	10	15	11	5	0
December 2020	80	1	5	10	11	8	3	0
January 2021	81	0	7	10	12	9	2	0
February 2021	84	0	9	6	11	10	3	0
March 2021	82	2	5	6	16	8	5	0
April 2021	84	2	4	4	12	12	6	0
May 2021	87	0	5	8	15	11	5	0
June 2021	87	6	2	4	16	7	4	0
July 2021	84	4	5	3	18	9	3	0
August 2021	84	6	4	2	12	8	2	0
September 2021	87	9	5	3	14	15	3	0
October 2021	95	10	4	5	16	10	4	6
November 2021	92	10	6	12	28	38	22	11
December 2021	93	4	7	12	16	12	3	2
January 2022	95	3	7	11	15	14	5	7
February 2022	93	2	5	12	16	15	4	0
March 2022	95	3	1	17	28	33	18	5
April 2022	92	2	12	26	34	23	19	11
May 2022	92	5	9	20	35	20	15	3
June 2022	98	4	10	21	35	12	9	7
July 2022	99	30	14	27	42	18	8	3
August 2022	99	42	19	34	42	15	4	0
September 2022	98	46	20	31	43	13	7	0
October 2022	98	45	12	37	49	44	28	3
November 2022	97	15	10	41	51	22	11	12
December 2022	96	24	11	31	40	11	5	2
January 2023	97	24	14	32	49	20	7	4
February 2023	99	27	9	26	47	23	3	3
March 2023	90	8	11	33	42	19	3	0
April 2023	94	13	12	35	41	17	2	0
May 2023	90	8	18	41	46	13	1	0
June 2023	95	8	18	40	37	12	4	3

2. Impact of discontinuation of provision of WIBID and WIBOR Reference Rates for 1Y Fixing Tenor on Transactionality Level of the other Fixing Tenors

In order to present the total impact of discontinuation of provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor, an analysis period was defined for which the Transactionality Level was verified (see Table 2⁶). In the Document the analysis period for which all statistics are calculated runs from December 16, 2020 (i.e. the date on which the Polish Financial Supervision Authority granted GPW Benchmark S.A. permission to operate as an administrator of interest rate benchmarks, including the critical benchmarks) until June 30, 2023⁷.

As regards Transactionality Level, 1Y Fixing Tenor is characterized by certainly the lowest level of this statistics among all Fixing Tenors. In the analysis period it amounted to 2.63%, which means that approximately every fortieth Quote used to determine the Reference Rates for 1Y Fixing Tenor in the analysis period was a Model Quote (i.e. based on Transaction Data), while the remaining Quotes were Committed Quotes.

As can be seen in Table 2, the proposed discontinuation of provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor is a change in Method that is neutral from the perspective of the Transactionality Levels of most of the other Fixing Tenors, while it translates into a slight decrease in the Transactionality Level of 6M Fixing Tenor (adjacent to 1Y). In the analysis period the Transactionality Level of WIBID and WIBOR Reference Rates decreased for the 6M Fixing Tenor from 6.93% to 6.56%, i.e. by 0.37 pp.

Table 2 Impact of discontinuation of provision of WIBID and WIBOR Reference Rates for 1Y Fixing Tenor on Transactionality Level of the other Fixing Tenors

Range of Fixing Tenors in the Reference Rates Method	ON	TN	SW	2W	1M	3M	6M	1Y
full range of Fixing Tenors (base version)	91,56%	11,96%	8,96%	19,47%	28,97%	16,21%	6,93%	2,63%
lack of 1Y Fixing Tenor	91,56%	11,96%	8,96%	19,47%	28,97%	16,21%	6,56%	-
<i>change vs. base version (in pp.)</i>	<i>0,00</i>	<i>0,00</i>	<i>0,00</i>	<i>0,00</i>	<i>0,00</i>	<i>0,00</i>	-0,37	-

Source: GPWB.

Table 3 Structure of 6M Fixing Tenor Transactionality Level change by Waterfall Method Level as a result of discontinuation of provision of WIBID and WIBOR Reference Rates for 1Y Fixing Tenor

Range of Fixing Tenors in the Reference Rates Method	Waterfall Method Levels for 6M Fixing Tenor								Transactionality Level
	L1.0	L2.1	L2.2	L3.1	L3.2	L3.3	L3.4	L4.0	
full range of Fixing Tenors (base version)	3,71%	0,20%	0,00%	0,00%	0,00%	1,46%	1,56%	93,07%	6,93%
lack of 1Y Fixing Tenor	3,71%	0,00%	0,00%	0,00%	0,00%	1,48%	1,37%	93,44%	6,56%
<i>change vs. base version (in pp.)</i>	<i>0,00</i>	-0,20	<i>0,00</i>	<i>0,00</i>	<i>0,00</i>	0,02	-0,19	0,37	-0,37

Source: GPWB.

A more detailed analysis of the impact of the discontinuation of provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor on the Transactionality Level of 6M Fixing Tenor is presented in Table 3. The key channels of this impact were the decrease in the frequency of Model Quotes determined at the Waterfall Levels 2.1 and 3.4 as well as a slight increase in the frequency of Model Quotes determined at the Waterfall Level 3.3 (see: Table 4).

⁶ The values presented in Table 2 are not the average of monthly Transaction Levels, but statistics calculated independently for the entire period of 31 months.

⁷ The analysis period is marked in Table 1 with a red frame.

Table 4 Waterfall Method Levels description

Level	Description
1	Model Quotes based on Transaction Data from the Underlying Market for Fixing Tenors.
2.1	Model Quotes based on the results of the Model Quote Interpolation Procedure applied by the Fixing Participant for Model Quotes submitted by the Fixing Participant at Waterfall Level 1 on the Fixing Day.
2.2	Model Quotes based on Deposits from the Underlying Market for Non-Fixing Tenors.
3.1	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Financial Institutions Segment) with Fixing Tenors.
3.2	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Financial Institutions Segment) assigned Fixing Tenors based on Non-Fixing Tenors.
3.3	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Other Financial Institutions Segment) with Fixing Tenors.
3.4	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Other Financial Institutions Segment) assigned Fixing Tenors based on Non-Fixing Tenors.
4	Committed Quotes based on internal procedures of the Fixing Participant, determined according to the guidelines defined by the Administrator in the Code of Conduct.

At the Waterfall Level 2.1, within which the Model Quote is based on the result of the Model Quote Interpolation Procedure, the frequency of Model Quotes drops to zero due to the impossibility of performing this procedure for 6M Fixing Tenor in the absence of Model Quotes for 1Y Fixing Tenor.

At the Waterfall Level 3.4, within which Model Quotes are based on the result of the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market on the basis of Transaction Data from Related Markets (in the segment of Other Financial Institutions) for Non-Fixing Tenors to which Fixing Tenors are assigned, the frequency of Model Quotes is reduced as a result of the narrowing down of the set of Eligible Transactions for Non-Fixing Tenors, to which the 6M Fixing Tenor can be assigned, to the set of Eligible Transactions for tenors between 3M and 6M Fixing Tenors. The discontinuation of provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor makes it impossible to use Eligible Transactions for tenors between 6M and 1Y Fixing Tenors.

In turn, at the Waterfall Level 3.3, within which Model Quotes are based on the result of the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market on the basis of Transaction Data from Related Markets (in the segment of Other Financial Institutions) for Fixing Tenors, the frequency of Model Quotes slightly increased. This was due to the fact that the lack of determination of Model Quote for 1Y Fixing Tenor, which makes it impossible to carry out the Model Quote Interpolation

Procedure for 6M Fixing Tenor, thus allows the Waterfall Method algorithm to reach the Level 3.3 in a greater number of cases (because it does not stop at the Level 2.1).

In the opinion of the Administrator, the discontinuation of provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor has only a limited impact on the Transactionality Level of 6M Fixing Tenor. Nevertheless, in order to avoid a hypothetical loss, which would obviously be greater if the number of transactions of above 6M maturity was greater (hypothetical scenario), the Administrator verifies whether there are elements under the current rules of provision of Reference Rates, the change of which could compensate for the loss of transactions with maturities above 6M Fixing Tenor. The element that allows for such a verification is the broadening of the range of transactions that are assigned to 6M Fixing Tenor, which is presented in Chapters 3 and 4.

3. Broadening of 6M Fixing Tenor definition and the term structure of Transaction Data

Considering the possibilities of limiting the scale of the Transactionality Level decrease of the 6M Fixing Tenor as a result of the discontinuation of provision of the WIBID and WIBOR Reference Rates for 1Y Fixing Tenor, the Administrator analyzed the effects of several alternative options of adjustments in a definition of the 6M Fixing Tenor. They consist of broadening the range (expressed in calendar days) around the date 6 months forward from the currency date of a given transaction, which determines the range of potential maturity dates qualifying such a transaction to the 6M Fixing Tenor set/pool. According to the current rules for 6M Fixing Tenor this range is defined at +/- 30 calendar days. The following alternative options of the range were analyzed: +/-35, +/-40, +/-45 and +/-50 calendar days.

Tables 5-6 show data on the number of Eligible Transactions in the analysis period for individual Fixing Tenors (Table 5) and Non-Fixing Tenors (Table 6) with different ranges within the definition of the 6M Fixing Tenor.

Table 5 Number of Eligible Transactions for Fixing Tenors depending on the definition of 6M Fixing Tenor

Range in the definition of 6M Fixing Tenor (+/- k days)	ON	TN	SW	2W	1M	3M	6M	1Y	Sum
k = 30 (base version)	28 966	963	231	1 160	3 471	1 466	642	209	37 108
k = 35	28 966	963	231	1 160	3 471	1 466	652	209	37 118
change vs. base version	0	0	0	0	0	0	10	0	10
k = 40	28 966	963	231	1 160	3 471	1 466	676	209	37 142
change vs. base version	0	0	0	0	0	0	34	0	34
k = 45	28 966	963	231	1 160	3 471	1 466	714	209	37 180
change vs. base version	0	0	0	0	0	0	72	0	72
k = 50	28 966	963	231	1 160	3 471	1 466	727	209	37 193
change vs. base version	0	0	0	0	0	0	85	0	85

Source: GPWB.

Table 6 Number of Eligible Transactions for Non-Fixing Tenors depending on the definition of 6M Fixing Tenor

Range in the definition of 6M Fixing Tenor (+/- k days)	SW-2W	2W-1M	1M-3M	3M-6M	6M-1Y	Sum	Unassigned	Sum
k = 30 (base version)	1 140	1 236	1 816	200	51	4 443	6 374	10 817
k = 35	1 140	1 236	1 816	193	48	4 433	6 374	10 807
change vs. base version	0	0	0	-7	-3	-10	0	-10
k = 40	1 140	1 236	1 816	169	48	4 409	6 374	10 783
change vs. base version	0	0	0	-31	-3	-34	0	-34
k = 45	1 140	1 236	1 816	132	47	4 371	6 374	10 745
change vs. base version	0	0	0	-68	-4	-72	0	-72
k = 50	1 140	1 236	1 816	122	44	4 358	6 374	10 732
change vs. base version	0	0	0	-78	-7	-85	0	-85

Source: GPWB.

Based on Table 6, it can be seen that with the current definition of the 6M Fixing Tenor (i.e. the range of +/-30 calendar days), the number of Eligible Transactions for Non-Fixing Tenors whose maturity dates fall between the 6M and 1Y Fixing Tenors is 51 in the analysis period. Assuming the discontinuation of provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor, the information from these

51 transactions cannot be used to determine the Model Quote for the 6M Fixing Tenor according to the Waterfall Method, which results in a loss of market information in relation to the Reference Rate Method that includes the 1Y Fixing Tenor.

As can be seen in Tables 5-6, the broadening of the range of the 6M Fixing Tenor definition results in the fact that some of the Eligible Transactions for Non-Fixing Tenors from the 6M-1Y range are "reclassified" to the 6M Fixing Tenor, which means that they can be used to determine the Model Quote for this Fixing Tenor. However, even after increasing the range to the maximum level that is considered in the analysis (i.e. 50 calendar days), only 7 out of 51 Eligible Transactions for Non-Fixing Tenors in the 6M-1Y range are "reclassified" to the 6M Fixing Tenor.

At the same time it is worth noting that the increase in the range in the definition of the 6M Fixing Tenor results in a much larger scale of "reclassification" into the 6M Fixing Tenor in the case of Eligible Transactions for Non-Fixing Tenors from the 3M-6M range (78 out of 200 such transactions are "reclassified"). This is a negative side effect of the entire operation, as Eligible Transactions "reclassified" in this way may be the basis for determining Model Quotes almost exclusively for the 6M Fixing Tenor⁸, while if classified as Eligible Transactions for Non-Fixing Tenors in the 3M-6M range they could be used to determine Model Quotes for both the 6M and 3M Fixing Tenors by using the Procedure of Allocation of Fixing Tenors to Transactions with Non-Fixing Tenors.

To sum up, in the light of the changes in the term structure of the Transaction Data as a result of the increase of the range in the definition of the 6M Fixing Tenor, this action does not seem to have any significant positive impact on the transaction pool size for the 6M Fixing Tenor, assuming that WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor are not provided. At the same time, such a modification of the definition of the 6M Fixing Tenor may have a negative impact on the transaction pool size for the 3M Fixing Tenor.

The next chapter presents the results of the analysis of the impact of broadening the definition of the 6M Fixing Tenor directly on the Transactionality Level of individual Fixing Tenors.

⁸ An exception is the situation in which such a "reclassified" Eligible Transaction comes from the Underlying Market and therefore it is used to determine the Model Quote for the 6M Fixing Date at the Waterfall Level 1 (i.e. the Model Quote based on Transaction Data from the Underlying Market for Fixing Tenors), which may then potentially be used to determine the Model Quote for the 3M Fixing Tenor within the Waterfall Level 2.1 (i.e. the Model Quote Interpolation Procedure), for which, however, it is also necessary to determine the Model Quote for the 1M Fixing Tenor at the Waterfall Level 1.

4. Broadening of 6M Fixing Tenor definition and Transactionality Level of Fixing Tenors

Tables 7-8 present the impact of the options of broadening the the 6M Fixing Tenor definition described in the previous chapter on the Transactionality Level of the 3M and 6M Fixing Tenors in the absence of WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor.

Table 7 Impact of broadening of 6M Fixing Tenor definition on Transactionality Level of Fixing Tenors*

Range in the definition of 6M Fixing Tenor (+/- k days)	ON	TN	SW	2W	1M	3M	6M
k = 30 (base version)	91,56%	11,96%	8,96%	19,47%	28,97%	16,21%	6,56%
k = 35 change vs. base version (in pp.)	91,56% 0,00	11,96% 0,00	8,96% 0,00	19,47% 0,00	28,97% 0,00	16,18% -0,03	6,62% 0,06
k = 40 change vs. base version (in pp.)	91,56% 0,00	11,96% 0,00	8,96% 0,00	19,47% 0,00	28,97% 0,00	16,12% -0,09	6,73% 0,17
k = 45 change vs. base version (in pp.)	91,56% 0,00	11,96% 0,00	8,96% 0,00	19,47% 0,00	28,97% 0,00	16,04% -0,17	6,84% 0,28
k = 50 change vs. base version (in pp.)	91,56% 0,00	11,96% 0,00	8,96% 0,00	19,47% 0,00	28,97% 0,00	16,03% -0,19	6,87% 0,31

* Analysis under the assumption of the lack of provision of WIBID and WIBOR Reference Rates for 1Y Fixing Tenor.

Source: GPWB.

Table 8 Structure of 3M and 6M Fixing Tenors Transactionality Level change resulting from broadening of 6M Fixing Tenor definitione (by Waterfall Method Level)

Range in the definition of 6M Fixing Tenor (+/- k days)	Fixing Tenor	Waterfall Method Levels								Transactionality Level
		L1.0	L2.1	L2.2	L3.1	L3.2	L3.3	L3.4	L4.0	
k = 30 (base version)	3M	4,91%	0,20%	0,25%	0,17%	1,88%	4,70%	4,10%	83,79%	16,21%
	6M	3,71%	0,00%	0,00%	0,00%	0,00%	1,48%	1,37%	93,44%	6,56%
k = 35	3M	4,91%	0,20%	0,25%	0,17%	1,84%	4,70%	4,11%	83,82%	16,18%
	6M	3,71%	0,00%	0,00%	0,00%	0,00%	1,60%	1,31%	93,38%	6,62%
change vs. base version (in pp.)	3M	0,00	0,00	0,00	0,00	-0,05	0,00	0,02	0,03	-0,03
	6M	0,00	0,00	0,00	0,00	0,00	0,12	-0,06	-0,06	0,06
k = 40	3M	4,91%	0,20%	0,25%	0,17%	1,84%	4,70%	4,05%	83,88%	16,12%
	6M	3,71%	0,00%	0,00%	0,00%	0,00%	2,01%	1,01%	93,27%	6,73%
change vs. base version (in pp.)	3M	0,00	0,00	0,00	0,00	-0,05	0,00	-0,05	0,09	-0,09
	6M	0,00	0,00	0,00	0,00	0,00	0,53	-0,36	-0,17	0,17
k = 45	3M	4,91%	0,20%	0,25%	0,17%	1,82%	4,70%	3,99%	83,96%	16,04%
	6M	3,71%	0,00%	0,00%	0,00%	0,00%	2,40%	0,73%	93,16%	6,84%
change vs. base version (in pp.)	3M	0,00	0,00	0,00	0,00	-0,06	0,00	-0,11	0,17	-0,17
	6M	0,00	0,00	0,00	0,00	0,00	0,92	-0,64	-0,28	0,28
k = 50	3M	4,91%	0,20%	0,25%	0,17%	1,81%	4,70%	3,99%	83,97%	16,03%
	6M	3,71%	0,00%	0,00%	0,00%	0,00%	2,54%	0,62%	93,13%	6,87%
change vs. base version (in pp.)	3M	0,00	0,00	0,00	0,00	-0,08	0,00	-0,11	0,19	-0,19
	6M	0,00	0,00	0,00	0,00	0,00	1,06	-0,75	-0,31	0,31

* Analysis under the assumption of the lack of provision of WIBID and WIBOR Reference Rates for 1Y Fixing Tenor.

Source: GPWB.

The data in Table 7 indicate that the change in the definition of the 6M Fixing Tenor affects only the Transactionality Level of the 3M and 6M Fixing Tenors and, what's more, the scale of this impact is very limited.

In the case of the 6M Fixing Tenor this is a positive impact, the maximum scale of which (with the range broadened to +/- 50 calendar days) is 0.31 pp. (an increase in the Transactionality Level from 6.56% to 6.87% in the analysis period). Although this is a minor change in absolute terms, it significantly limits the

decrease in the Transactionality Level of this Fixing Tenor as a result of discontinuation of provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor (the drop is 0.37 pp. - see: Chapter 2).

Based on Table 8, it can be concluded that the channel for improving the Transactionality Level of the 6M Fixing Tenor is the Waterfall Level 3.3, at which the Model Quote is based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market on the basis of Transaction Data from Related Markets (the segment of Other Financial Institutions) with Fixing Tenors. This is due to the increase in the number of Eligible Transactions from the Other Financial Institutions segment classified to the 6M Fixing Tenor. On the other hand, the Waterfall Level 3.4, at which Model Quote is based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market on the basis of Transaction Data from Related Markets (the segment of Other Financial Institutions) that were assigned Fixing Tenors based on Non-Fixing Tenors, turns out to be a channel of deterioration of the Transactionality Level due to the decrease in the number of Eligible Transactions from the segment of Other Financial Institutions classified as transactions with Non-Fixing Tenors included between 3M and 6M Fixing Tenors. What is crucial, in each of the tested options of range in the definition of 6M Fixing Tenor, the scale of improvement of the Transactionality Level through the Waterfall Level 3.3 is clearly greater than the scale of its deterioration through the Waterfall Level 3.4 and therefore the net effect is always positive.

In the case of the 3M Fixing Tenor the broadening of the 6M Fixing Tenor definition shows a negative impact on its Transactionality Level and the maximum scale of this impact (with the range extended to +/-50 calendar days) is 0.19 pp. (a decrease in Transactionality Level from 16.21% to 16.03% in the analysis period).

There are two channels of deterioration of the Transactionality Level here (see: Table 8). The first is the Waterfall Level 3.2, at which the Model Quote is based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market on the basis of Transaction Data from Related Markets (the Financial Institutions segment) that were assigned Fixing Tenors based on Non-Fixing Tenors. The reason for the deterioration of the Transactionality Level through this channel is the drop in the number of Eligible Transactions from the Financial Institutions segment classified as transactions with Non-Fixing Tenors included between 3M and 6M Fixing Tenors. A similar situation applies to the Waterfall Level 3.4, except that here the drop in the number of Eligible Transactions classified as transactions with Non-Fixing Tenors included between 3M and 6M Fixing Tenors takes place in the Other Financial Institutions segment.

To sum up, the conducted analysis indicates that the broadening of the 6M Fixing Tenor definition (by increasing the range that is an element of this definition to +/-50 from +/-30 calendar days) on the one hand significantly limits the decrease in the Transactionality Level of the 6M Fixing Tenor resulting from discontinuation of provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor. However, on the other hand, it translates into a decrease in the Transactionality Level of the 3M Fixing Tenor. In consequence, the broadening of the 6M Fixing Tenor definition results in a transition from a situation in which the Transactionality Level of the 6M Fixing Tenor decreases by 0.37 pp. (as a result of discontinuation of provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor, without any other adjustments), to a situation in which the Transactionality Level drops in the case of both the 6M Fixing Tenor (albeit to a significantly smaller extent - by only 0.06 pp.) as well as the 3M Fixing Tenor (by 0.19 pp.).

Such a modification of the 6M Fixing Tenor definition alleviates one problem, but at the same time creates a completely new one, which - due to the varying term structure of the unsecured deposit market - may have different effects in the future (including in the period of interest rate cuts or changes in the

level of liquidity and the resulting changes in the slope of the yield curves), which, in the opinion of the Administrator, does not justify its implementation within the Reference Rates Method.

5. Other factors affecting the discontinuation of the provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor

The Administrator indicates that the proposals set out in Paper do not meet the criteria for a material change to the WIBID and WIBOR Reference Rate Method, due to the fact that they do not fall under the definition of Key Elements of the Method. Administrator states also that that proposal of discontinuation of 1Y Fixing Tenor does not imply cessation of the WIBID and WIBOR Reference Rates, including cessation of critical benchmark, as Administrator maintains other Fixing Tenors, including those most crucial ones from the point of view of the financial system (including primarily 3M and 6M Fixing Tenors). However, Administrator takes advantage of the public consultations on the matters of high importance for the provision of the benchmarks. Through consultations Administrator obtains opinions of users of Reference Rates or other interested parties about proposed changes to the Method or other aspects of the benchmark provision and fulfils its public information policy, while ensuring transparency of the Administrator's activities.

As indicated in the Paper, the discontinuation of the provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Tenor entails changes to certain elements of the Reference Rate Method. The considered changes, which do not represent a material change to the Method, will however require adjustments in the documentation of the WIBID and WIBOR Reference Rates, including the Model Quote Specification, as well as changes in the analytical systems of the Administrator and the the WIBID and WIBOR Reference Rate Fixing Participants as regards the modification of the automated Model Quote algorithm. Due to the need for IT adjustments, the change will require adequate management of the implementation schedule and adequate tests of the newly implemented algorithm in order to confirm its conformity with updated Model Quote Specification.

The Administrator also indicates that, bearing in mind the above mentioned changes and taking into account the impact of the discontinuation of the development of Reference Rates for the 1Y Fixing Tenor, it wishes to define an optimal date for such change in methodology, which will also allow to manage adequately the business relations between entities and users of WIBID and WIBOR Reference Rates.

In the course of analytical work, the Administrator rejected the possibility of proposing:

- asymmetric ranges in the rules of assigning Fixing Tenors in case of 6M Fixing Tenor, taking into account, among others, inconsistency arising in such a scenario as to the representativeness of this Fixing Tenor in relation to other Fixing Dates and the introduction of transactions with maturities longer than the maturities of transactions qualified under the current rules for the 6M Fixing Tenor, the interest rate of which may take into account changes in the assessment of factors affecting expectations on e.g. NBP's interest rates or the level of liquidity in the future (thus changes in the slope of the yield curve),
- analytical procedures enabling the assignment of the 6M Fixing Tenor to transactions whose maturity date exceeds the range of potential maturities assigned to the 6M Fixing Tenor, by adjusting the interest rate level of such transactions, based on the fitted model of the money market yield curve.

6. Administrator's Recommendations

GPW Benchmark as the Administrator of WIBID and WIBOR Reference Rates recommends:

- discontinuation of the provision of the WIBID and WIBOR Reference Rates for the 1Y Fixing Term, in a manner that does not cause disturbances on the financial market, i.e. within a period that guarantees effective management of contracts and financial instruments based on the 1Y WIBID or 1Y WIBOR,
- no changes to the rules of assigning Fixing Tenors in case of 6M Fixing Tenor, due to the ambiguous and limited scope of their positive impact on the Transactionality Level of the 6M Fixing Tenor, including in particular their negative impact on the Transactionality Level of the 3M Fixing Tenor at the same time.

In connection with the above mentioned recommendations, discontinuation of determination of WIBID and WIBOR for 1Y Fixing Tenor, implies a set of changes in the WIBID and WIBOR Reference Rate Method, neither of which could be defined as a Material Change in the Method, i.e.:

- change in the scope of Fixing Tenor for which Reference Rates and Input Data are determined, consisting in removing the 1Y Fixing Tenor,
- changes in the Procedure of Allocation of Fixing Tenors by removing the procedure of assigning a 1Y Fixing Tenor from it,
- changes in the Procedure of Allocation of Fixing Tenors to Transactions with Non-Fixing Tenors consisting in limiting the scope of application of this Procedure to Eligible Transactions with Non-Fixing Dates whose dates fall between the Fixing Tenors of SW and 6M (compared to the range between SW and 1Y previously),
- changes in the Interpolation Model Quotes Procedure consisting in excluding its application to the 6M Fixing Date,
- changes to the Bid/Offer Spread Calculation Procedure, the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market and other (i.e. not listed in the previous points) analytical procedures from Levels 1, 2.2, 3.1, 3.2, 3.3, 3.4 of the Waterfall Method, consisting in removal of these procedures for Quotes for a 1Y Fixing Tenor.

In connection with the above, the Administrator provides the participants of the consultation with the attached Questionnaire. The Administrator provides the Paper to the group of external stakeholders, which includes the Data Contributors, users of the index or benchmark, including primarily entities using the WIBID and WIBOR Reference Rates on the basis of a signed agreement, industry associations, the National Bank of Poland, public authorities and public administration. Paper is also made available on the Administrator's website.

The public consultation is scheduled for 4 weeks. The deadline for submission of responses to the Questionnaire for international stakeholders is 2nd October 2023.